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The ratio of candidates for sight conservation classes.



EDUCATIONAL RESEARCH AND STATISTICS

THE RATIO OF CANDIDATES FOR SIGHT CONSERVATION CLASSES

THE penchant of the human mind to indulge in hyperbole is perennial and well-nigh ineradicable. This weakness applies particularly to the sponsors of aggressive campaigns, whether good, bad or indifferent. Their pronouncements in the eyes of their loyal followers, who are usually also by temperament or training hyperenthusiasts, become sacrosanct and impermeable to argument or proof. Estimates are no sooner made by propagandists on the flimsiest of scientific evidence than they are seized with avidity and translated into rallying shibboleths. None but the most valiant have the necessary courage to question generally accepted estimates, however visionary they may be, because they realize that it requires decades and generations of fact finding to correct mistakes which have their origin in emotionalized drives. Prepossessions based on sentimental and emotionalized convictions are singularly immune to logic and fact. The critic of the "idols of the cave" (and some caves are inhabited by scientific cavemen!) knows full well that until the light of truth slowly emerges he will be subjected to all manner of misrepresentation and personal disparagement, more frequently through undercover whispering campaigns than through straightforward, open, signed attacks in print.

A historical incident within the memory of most of my readers is apropos. In 1911, the educational world was assured on unimpeachable scientific authority that "three per cent. of the public school population are without doubt feeble-minded." This estimate, we were assured, was ultraconservative. Indeed, on the standards then universally accepted as correct from 8 to 11 per cent. of elementary pupils should have been classified feeble-minded. Recognizing the absurdity of such findings, few had the courage to follow the standards they lustily defended to their inescapable logical conclusions. One examiner proved consistent, announcing that over 11 per cent. of the school children were feebleminded in the best residential section of one of the best New England cities, economically and socially considered, of over 20,000 inhabitants. Imagine the concern which this alleged "scientific conclusion" produced in the minds of the superintendent, board of education and welfare workers of that city!

As early as 1915 the writer became "rash" enough (in the words of a critic) to repudiate unequivocally in public addresses and printed articles the standards of feeble-mindedness on the basis of which tens of thousands of persons had been sent to special classes or institutions for the feeble-minded. On the basis of first-hand study of actual situations in a number of school systems the conclusion was ventured that "rather less than one per cent. of elementary school children are feeble-minded," in the social and legal connotation of the word. Since this early announcement he has spent fifteen additional years in the clinical study of many thousands of the most backward children in several scores of school districts, urban, rural, village, city and county, and also in the supervision, administration and organization of special classes, special education departments or clinics in numerous school systems, in localities varying in population from a thousand to 800,-000. In numerous articles in scientific journals and in books ample corroborative proof has been presented in support of the conclusion reached a decade and a half ago. In spite of this evidence, which has never been scientifically refuted, the country abounds with survivors of the "days of 1910" who still insist that from 2 per cent. to 4 per cent. of elementary school children are "feeble-minded" and who not only assign this ratio of children to classes for the feeble-minded, but even advocate the exclusion of 3 per cent. of the most backward children from the public schools. These children, they tell us, are feeble-minded and uneducable and therefore should be sent to state institutions for the feeble-minded. It matters not that follow-up studies have abundantly demonstrated that all levels of ability above approximately the lowest one percentile are capable of economic self-support, especially if properly trained, so far as sheer ability is concerned.

These protagonists either shut their eyes to the consequences of established facts, or, more probably, they completely ignore the publications of writers whose conclusions are not in harmony with their own scientific proclivities or emotional prejudices.

Nothing is more resistant to the logic of fact than blind adherence to doctrinaire ideas based on policial or religious prejudice, or emotionalized scientific bias. Scientific preconceptions buttressed on emotionalized drives are fully as bigoted, irrational and impervious to logic and proof as political or racial or religious fanaticism.

For several years now public school authorities have been repeatedly told that they must make provision for at least one child in 500 in sight-conservation classes. It is claimed that this estimate is based upon "scientific examinations of eye conditions," that the standards of admission have been fully authenticated and that to question the status quo is an act of reprehensible supererogation. These claims strongly remind one of the parallel claims made in the early part of the second decade of this century respecting the ratio of feebleminded pupils and the "infallibility" of the tests and the "amazing" accuracy of the standards.

And any one "rash" enough to attack the "idols of the cave" in the particular segment of human endeavor with which we are now concerned must expect either to be ignored or to be discredited by personal attacks, usually administered sub rosa.¹

1 To cite a recent case in point: In "A Brief Survey of Special Education in the Public Schools of Baltimore," made in the spring of 1929, the writer wrote: "The number of different types of handicapped children who should be placed in special classes has not been definitely scientifically determined, and obviously may vary from city to city. . . . The standards followed are often largely empirical and frequently are not adhered to because of sentimental interest in handicapped children, or the pressure to get all the state aid possible leads to the transfer of children who would be as well off, or better off, in the regular grades." Facts were cited showing that the ratios of children assigned to sight-conservation classes in a state affording very liberal state subsidy varied from 1 to 100 to 1 to 2,500 of the school enrolment, the largest ratios being in the smallest cities,

Obviously, this attitude of mind solves no problems and makes for stagnation. Public school authorities now are, or should be, as vitally concerned regarding the truth of the claims made regarding the prevalence of candidates for sight-conservation classes as they have been concerned for two decades about the claims made concerning the ratio of feeble-minded school children. They can not base administrative policies on the ipse dixit of well-meaning laymen or supervisors or teachers who may be more distinguished for enthusiastic devotion to a cause than for scientific insight or technical diagnostic skill. School administrators have a right to know the facts; they can not organize schools intelligently without facts. Loyalty to a cause can not alter the facts, but needs to be guided by facts that have been impartially and scientifically established.

For many years the writer has been deeply interested in sight-conservation work, and has enjoyed the opportunity of examining and checking up the records of ocular findings on many children recommended for, or assigned to, sight-conservation classes in many school systems. One of the things that has impressed him in this first-hand study has been the enormous variation of the eye conditions found in the children assigned to such classes. The variation has been fully as great as the variations found in classes for the "feeble-minded," which have been made dumping grounds for all sorts of pedagogical ne'er-do-wells. In some cases the conclusion has been irresistible that the laxity of admission standards has been due to the fact that a sufficient number of bona fide cases did not exist in the school district to establish a class with the requisite number to meet the state requirement and that, therefore, in order to

"which suggests that indefinite standards have been followed in these cities." This elicited a protest in a personal communication which was not addressed to the author, who was solely responsible for the statements of the survey, but to a superior officer, obviously for the purpose of personal disparagement rather than for the purpose of ascertaining the actual facts in the situation. It is evident from the context that this correspondent positively knows that the standards now in use are perfect and that the ratio of children for sight-conservation classes must be at least 1 to 500.

secure the large state subsidy available, it would be necessary to admit many borderline cases. But the variations are also due to the differences in the state standards. The chaotic character of official standards offers sufficient proof that it is no more sacrilegious or superfluous to emphasize in 1930 the paramount need of studying and validating admission standards to sight-conservation classes, than it was in 1915 to emphasize the similar need for the scientific validation of admission standards to classes for mental defectives. To cite merely a few instances in point.

In one state visual defectives are, in general, admitted whose vision can not be brought by glasses or treatment beyond one third; in a second state the standard is 20/50 or less in the better eye; in a third, one half normal, and in a fourth 20/70. The standard for "myopes" is given as three diopters in one state, six in another and eight in a third. For hyperopes the standards in three states are 20/100 or less, unless decided asthenopia exists, eight diopters with asthenopia, and less than 20/70 in the better eye with evidence of asthenopia. The method of evasion, dogmatic assumption and bigoted denial of the right of scientific investigators to question existing practices will not establish scientific standards for sight-conservation classes.

During the school year 1929–30 the writer inaugurated three "drives" for the purpose of locating all suspected candidates for sight-conservation classes in the Baltimore schools. One survey was made in the colored schools with the cooperation of the director of those schools, while two drives were made in the white schools. The principals were requested to report the names of all children in need of an eye examination because of seriously defective vision. Two requests were issued to the white schools because of the limited number of returns from the first request.

As a result of the three special surveys, 144 suspects were reported from the colored schools and 86² from the white schools. Following tests of vision by a special nurse, the eyes of all these children, except those who obviously did not require a further examination, were carefully refracted and examined by oculists in

² Exclusive of cases reported from two junior high schools which were inadvertently overlooked.

private practice or connected with the Municipal Health Department, the Wilmer Eye Institute or clinics connected with other local institutions. Many of these children were examined in the clinics of some of the country's outstanding opthalmologists.

In addition to these special surveys, the Division of School Hygiene makes routine tests of the visual acuity of almost all children in grades four through twelve, and of children specially referred from the kindergarten and the primary grades. The number of cases of defective vision reported as a result of all the eve examinations this year was 5,767 for all the elementary, junior and senior high schools, white and colored. Subsequent examinations are made by oculists of children recommended for such examinations as a result of the preliminary tests. Of course, no reports for children examined as a result of this routine procedure are sent to the Division of Special Education unless they are recommended for sight-conservation classes.

As a result of the three special and the routine surveys, the names of 292 children were received by the Division of Special Education. Of these, 37 white and 34 colored children were recommended to sight-conservation classes. To these may be added 16 boys and 10 girls who were in the classes in September, or a total of 97. Rather than attempt to base conclusions on this limited number, it seems advisable to group together all children who had been examined for sight-conservation classes since 1926 in the white schools and since 1928 in the colored schools. The total number of recommendations during these years are: boys, white 44, colored 18, total 62; girls, white 41, colored 22, total 63; grand total 125.

No record exists of the total number of children who have attended the Baltimore schools during these years, but it is several thousand more than the January enrolment for the year 1929–1930. But, since all visual defectives were not examined during this period, it is preferable to base percentages on the enrolment as of January, 1930. Possibly the addition of the sight-conservation cases from 1926 to June, 1929, will more than make up for the cases which may have been missed in the surveys made this year, so that the ratios obtained may be exaggerated.

TABLE I
ENROLMENT OF CHILDREN IN THE BALTIMORE SCHOOLS AS OF JANUARY, 1930

C 7	La partir	White			Colored		Both races				
Grades —	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes		
Kg. to VIII	36,162	35,049	71,211	8,819	10,105	18,924	44,981	45,154	90,135		
IX to XII	6,444	6,314	12,758	709	1,309	2,018	7,153	7,623	14,776		
Total	42,606	41,363	83,969	9,528	11,414	20,942	52,134	52,777	104,911		

TABLE II

(a) CHILDREN IN SIGHT-CONSERVATION CLASSES IN SEPTEMBER, 1929, AND RECOMMENDED FOR SUCH CLASSES IN 1929-1930

Bo	ys	G	irls	Both	sexes	Во	ys	Gi	rls	Both	sexes	Во	ys	Gi	irls	Both	sexes
No. 35	Per cent.	No. 28	Per cent.		cent.	No.		No:	cent.	No.	Per cent.	No.			Per cent.		Per cent
7	(b)	ALL	CHILD	REN I							ion Ci School		S SINC	E 192	26 (W	HITE	
						100000000000000000000000000000000000000				-			-	-		2 1000	11 19

In Table I are given the enrolment data as of January, 1930, while Table II gives the number and percentages of (a) children recommended to sight-conservation classes in 1929–30 plus the children already in such classes in September, 1929, and (b) children recommended to such classes since 1926 in the white schools and since 1928 in the colored schools. The figures speak for themselves.

Comment will be restricted to three facts based on the total array of cases: (1) The ratio is about twice as large for the colored as for the white children; (2) the ratio is about the same for the boys and girls of the same race. and (3) the average incidence for the entire group is 0.11 per cent., or about one per 1,000, or 50 per cent. as large as the "publicity" claims. The Baltimore ratio is practically the same as that reported by James Kerr for the London schools, where the sight-conservation classes originated in 1908, and as that reported for Philadelphia by Newmayer. The findings of these cautious scientists is about 50 per cent, of the estimates constantly made by some dilettante promoters who like to revel in large numbers because they have financial or other axes to grind.

We are fully aware of the limitations of our data. The inferences to be drawn from them have the value of suggestions merely rather than conclusions.

Sight-conservation classes have not yet emerged from the pioneer stage. Progress still awaits the application of improved scientific techniques in this important field of educational service, provided the investigator is not hamstrung by opinionated obstructionists who know that everything is now known that can be known or needs to be known, and who try to discourage critical investigations and the frank publication of results because they are afraid that the results of such investigations will loosen the foundations of their house of cards and impair their prestige.³

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³ The recent study by E. T. Myers (''A Survey of Sight-Saving Classes in the Public Schools of the United States,'' The Sight-Saving Class Exchange, No. 31, 1930) contains most of the references and also the results of a questionnaire inquiry on sight-conservation work.

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